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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,571	05/16/2005	James Langham Dale	23558-0017	4029
61263	7590	07/27/2007	EXAMINER	
PROSKAUER ROSE LLP 1001 PENNSYLVANIA AVE, N.W., SUITE 400 SOUTH WASHINGTON, DC 20004			WORLEY, CATHY KINGDON	
		ART UNIT	PAPER NUMBER	
		1638		
		MAIL DATE	DELIVERY MODE	
		07/27/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/521,571	DALE ET AL.
	Examiner	Art Unit
	Cathy K. Worley	1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 January 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 and 70-138 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) _____ is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) 1 and 70-138 are subject to restriction and/or election requirement.

Application Papers

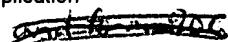
- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>sequence alignment</u> .  |

DETAILED ACTION

Election/Restrictions

1. The restriction requirement mailed on July 3, 2007 is VACATED because it was mailed to the incorrect address. The restriction requirement in this office action replaces the previous one, and the time for reply is ONE MONTH from the mail date of this office action.
2. Restriction is required under 35 U.S.C. 121 and 372.
3. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Groups I-IV, claim(s) 1, 70-77, 87-89, 93-108, 78-80 (in part), and 90-92 (in part), drawn to DNA molecules and constructs comprising specified polynucleotides; wherein the specified polynucleotides for groups I-IV are defined by their relationship to SEQ ID NO: 6-9, respectively.

Groups V-VII, claim(s) 81-82, 84, 83 (in part), and 85 (in part), drawn to polynucleotides comprising nucleotide sequences that encode specified amino acid sequences; wherein the specified amino acid sequence for groups V-VII is SEQ ID NO: 3-5, respectively.

Groups VIII-X, claim(s) 86 (in part), drawn to an isolated polypeptide comprising a specified amino acid sequence; wherein the specified amino acid sequence for groups VIII-X is SEQ ID NO: 4-6, respectively.

Group XI, claim(s) 109-121, drawn to a method for gene expression in a plant, comprising introducing an isolated promoter or biologically active fragment thereof or variant of these.

Group XII, claim(s) 122, drawn to progeny obtained from a differentiated transgenic plant.

Group XIII, claim(s) 123, drawn to a plant part of a differentiated transgenic plant.

Group XIV, claim(s) 124, drawn to a differentiated transgenic plant regenerated from transformed plant cells.

Group XV, claim(s) 125-133, drawn to a transformed plant cell and transgenic plant.

Group XVI, claim(s) 134, drawn to a method of using a chimeric DNA construct.

Group XVII, claim(s) 135, drawn to a method for diagnosing a badnaviral infection of a plant.

Groups XVIII-XXVI, claim(s) 137 and 136 (in part), drawn to a method of screening for an agent that modulates badnaviral infection that utilizes either a polypeptide with a specified amino acid sequence or a polynucleotide with a specified nucleic acid sequence; wherein the specified sequence for groups XVIII-XXVI is SEQ ID NO: 1-9, respectively.

Groups XXVII-XXXV, claim(s) 138 (in part), drawn to a method for treating and/or preventing a badnaviral infection of a plant that utilizes either a polypeptide with a specified amino acid sequence or a polynucleotide with a specified nucleic acid sequence; wherein the specified sequence for groups XXVII-XXXV is SEQ ID NO: 1-9, respectively.

4. The inventions listed as Groups I-XXXV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking groups I-XXXV is an isolated DNA comprising a promoter upstream of SEQ ID NO:1 or upstream of a sequence that hybridizes to SEQ ID NO:1 or a fragment or variant; or a coding sequence comprising SEQ ID NO:1 or a variant or portion thereof; or a polypeptide encoded by SEQ ID NO:1 or a variant or portion. SEQ ID NO:1 encodes 3 open reading frames (ORFs) from the Taro bacilliform virus (TaBV) (see first page 4 of the instant specification). Huang et al teach the genomic sequence of the *Citrus yellow mosaic virus* in their article "Cloning and sequence analysis of an infectious clone of *Citrus yellow mosaic virus* that can infect sweet orange via *Agrobacterium*-mediated inoculation" (see J. of Gen. Virol. (2001) Vol. 82, pp. 2549-2558). They teach that the genomes of all badnaviruses have similar genome organization and contain three open reading frames capable of encoding proteins with a molecule mass greater than 10 kDa (see paragraph bridging pages 2549-2550). The amino acid sequence of one of the proteins encoded by the virus taught by Huang et al is published in GenBank Accession NP_569153 (See Huang et al (2001) GenBank accession NP_569153.1). This protein shares substantial homology with the protein encoded by the instant SEQ ID NO:1 (see alignment). This demonstrates that the genomic sequence taught by Huang et al encodes a "portion" and a "variant" of the proteins encoded by

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the instant SEQ ID NO:1. Therefore, the technical feature linking the inventions of groups I-XXXV does not constitute a special technical feature as defined by PCT Rule 13.2 as it does not define a contribution over the prior art.

Accordingly, Groups I-XXXV are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

5. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

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6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

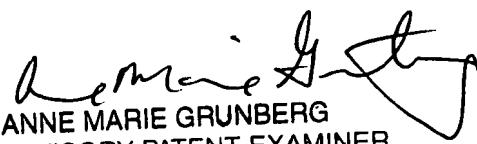
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy K. Worley whose telephone number is (571) 272-8784. The examiner has a variable schedule but can normally be reached on M-F 10:00 - 4:00 with additional variable hours before 10:00 and after 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CKW



ANNE MARIE GRUNBERG
SUPERVISORY PATENT EXAMINER

Sequence Alignment

>ref|NP_569153.1| G poplyprotein [Citrus yellow mosaic virus]
 >gb|AAL18495.1|AF347695_3 G unknown [citrus yellow mosaic virus]
 Length=1983

Score = 736 bits (1900), Expect = 0.0
 Identities = 383/725 (52%), Positives = 505/725 (69%), Gaps = 34/725 (4%)
 Frame = +2

Query 4145	QVAKSS-VLPRLYSIQAHIIHIAPIDIVISTTAIIDTGTAVCCISEKIVPEAAKEQLNYKVN	4321
Sbjct 1177	QVTKTRPVKNMLYNMDVRMEIPGIPAFTVKAILDTGATTCIDSRSVPKDALEENSFVVN	1236
Query 4322	isgissqqqiqhRLKRGTLEIASNKYALPLCYIIELNDKDDFSMILGCNFHKHMGGGMRF	4501
Sbjct 1237	SGI+S+QQ++ +LK G + I + + +P CY E+ D +ILGCNF + M GG+R FSGINSKQQVKQKLKTGKMFINEHYFRIPYCYSFEMQIGDGIQLILGCNFIRSMYGGVRL	1296
Query 4502	EGPHVTFYKGITTLSTSANTGIDTEHEQ-----ITSTTSQSFKER	4624
Sbjct 1297	EG +TFYK IT+++T A + E E+ T F+++ EGNTITFYKQITSINTRLAAPLLKQEEEKEEELNLEEHLIQEMVAYSTERPFVQFQOK	1356
Query 4625	FSPLMNELKAAGYIGEDPLKHWSKNKVTCKLDKNTETITI QDKPLR HITPALEQSYGRHV	4804
Sbjct 1357	F+ L+ +LKA GYIGE+P+K+W+KN+V C LD+KN ++ I+D+PL+H+TP +E+S+ +HV FAGLIQDLKAQGYIGEEP MKYWAKNQVVC HLDIKNPDMVIEDRPLKHVT PQMEESFRKHV	1416
Query 4805	NALLMLKVIQPSKSRHRTMAFLVNSGTTVTA-DGKEIKGKERMVFNYKALNDNTYKDQYS	4981
Sbjct 1417	ALL + I+PSKSRHRT A +VNSGT++ GKE+KGKERMVFNYK LND T KDQYS EALLKIGAIRPSKSRHRTAIIVNSGTSIDPITGKEVKGKERMVFNYKRLNDLTNKDQYS	1476
Query 4982	LPNIQLILKKVINSTIYISKFDLKSGFHQVAM PDSVEWTAFLVPQGLYEWLAMPFGLKNA	5161
Sbjct 1477	LP NIQ IL+++ STI+SKFDLKSGFHQVAM PDS+EWTA VP GLYEWL MPFGLKNA LPGIQTILQRLKGSTIFSKFDLKSGFHQVAM HPDSIEWTAFWVPSGLYEWLVMPFGLKNA	1536
Query 5162	PAVFQRKMDAVFKGCEKF LAVYIDDLILVFSNNEEDHAKHLVIMLQRCKEHLVLSPTKMN	5341
Sbjct 1537	PA+ +FQRKMD FKG E F+AVYIDDLILVFS E+DH KHL IML C+++GL+LSPTKM PAIFQRKMDHCFKGTEAFIAVYIDDLILVFSKTEQDHEKHLQIMLAICQKNGLILSPTKMK	1596
Query 5342	IAVREVNFLGATIGSRKVKLQENIIKKILD FDTEKLQSKKGLRSFLGI LNYARNHI PN LG	5521
Sbjct 1597	IA E+ FLGA I +KLQ +I++K+L F ++L+ KGLRS+LG+LNYAR++I P++G IAQAEIEFLGAIHKGLI KLQPHIVQKLLFTNKQLEEVKGLRSWLGLNNYARSYI PHMG	1656
Query 5522	KIAGPLYSKTSIYGDIRFSASDWKLINEIKAIVEKLPP LDYPPEQAYIIIESDGCMEGWG	5701
Sbjct 1657	++ PLY+K S G+ R+ DW LI++I+A V+ LP L+ PP +IIIE+DGCM+GWG RLLSPLYAKVSPGERRMRQDWALIDKIRAQVNLPALPPADCIIIETDGCMDGWG	1716
Query 5702	AICKWKLAEYDPKSSEQICAYASGKF SPIKSTIDAEITAAMEGLEAFKIHYLDKQKITLR	5881
Sbjct 1717	+CKWK+A+YDP+SSE++CAYASGKF+P KSTIDAEI A M L FKI+YLDK + LR GVCKWKVAQYDPRSSERVCAYASGKF NPKSTIDAEIH AVMNSLNNFKIYYLDKSSLCLR	1776
Query 5882	TDCQAIISFCNKT SVNKPSRVRLKFIDYITNTGIDVKFEHIDAKNNVLADTLSRLVNTL	6061
Sbjct 1777	TDCQAIISF NK++VNKP SRVRW+ F D++T GI V EHID KN LAD LSRLV TDCQAIISFFNKS NVNKPSRV RWIAFTDFLTGLGIPVNIEH IDGKNH LAD ALSRLV TGF	1836
Query 6062	QDL-PWLDEPHQDQTVSL---MQEIEDAP----LEIKQRS LTCLQR LICR SFMEDST	6208
Sbjct 1837	P + QD L +QE ++AP + + RS + R +C FM DS+ VFAEPQCQDKFQDDLGKLEA ALQEKKEAPQAMHVEYVSLLIRSADRITRSLC--FMRDSS	1894
Query 6209	EEAIH 6223	
Sbjct 1895	I+ HSRIY 1899	

Score = 360 bits (924), Expect = 7e-97
 Identities = 226/608 (37%), Positives = 324/608 (53%), Gaps = 59/608 (9%)
 Frame = +2

Query 2069	DLDYPTLISM EK-----QLVQSSVTSAYNPPTEPLMGQVYPPA-SAPRPQAET	2212
Sbjct 581	+ DYP ++ + V SS S+Y PPT+ M V YPPA + P EFDYPAFARLQAH EESGRPKPKTEKV LSSAISYYTPPTDTAMTPVAYPPAQNIA PSYNP	640
Query 2213	SSTSERFKNFRAKPYSTPT----IFLPPAYNQQGAILVLPDDIGLYEDTISRWE SITLN	2377
Sbjct 641	S + F+ + K + I L P A GA+ +P IGL+ + + WE+IT SPQMPM FEGYYPKRPNFKRDNHAFISLPSAQ QNTGALFIMPQQIGLFHEVFTSWEAITKA	700

Query	2378	MMNEKVWPSNEAKAKYMEENLLGEMEKKTWIOWRRTTYVSEYDALVQQSDE---TQNLLSQV + ++ KA+++EN+LG EK W QWR Y EY+ LV +D TQN+LSQ+ Sbjct	701	YVAQQGITDPRDKAEFIENMLGPTEKIIWTQWRMGYADEYENLVTTADGREGTQNLISQM	2548 760
Query	2549	RRIFLLQDPYQGSTAEQDQAYNDLERISCDNIKDLIPYLIQFRNLAAKSGRLFLGPELSE RR+F L+DP GSTA QD+AY DLER++CD++K ++ YL F +AAK+GR+F+GPELSE	761	RRVFSLEDPTTGSTAVQDEAYRDLERLTCDSVKHIVQYLNDFMRIAAKTGRMFIGPELSE	2728 820
Query	2729	KLFRKMPPLIGKEIETAFIAKHGNANITVMPRIHFAYHYLAELCKKAALQRSLKDSLFCN KL+ KMP +G+ ++ A+ KH + V PRI FAY YL CK AA +RSLK+LSFC+ Sbjct	821	KLWLKMPGDLGQRMKKAYEEKHPGNIVGVCPRILFAYKYLEGECKDAAFRRSLKNLSFCS	2908 880
Query	2909	QIPLPGIY--TKGNKKFGLRKARTYKGKPHPTHVRVFKKAKYQRTKCKCFCIGEPGHFA IP+PG Y G K++G+R+ TYKGKPH TH R+ +K K+ R KKCKC++CGE GHFA Sbjct	881	SIPIPGYGGKSGEKRYGVRRRTTYKGKPHSTHARI-EKTKHLRNKCKCYLCGEEGHFA	3082 939
Query	3083	RECTKQRGNIVRATVHQELAI PDNFdvvsvdadesdssGIYSYSE-NEAPLQEVSFIHD REC R N+ R + + L +PD+ ++VS+D + DS I+S SE EA E F+ Sbjct	940	RECPNDRRNVKRVAMFEGLDLPDDCEIVSIDE GDPDSDAIFSISEGEEAGTLEEQCFVFO	3259 999
Query	3260	ENIFFLSDADEFESPQQHLHETVNMLQSRSAYLPOVAVGEEKLNCISHIWLQDVIPSCHK L R Y V + +E C H W ++ I H Sbjct	1000	EEC-----NGTYWLKGKRGYYQDLVQISKEIYYCQHEWEENQPINDPAH	3439 1042
Query	3440	-KCHTCRRDTQKHYRLECKQCKFLVCSLCTIPYLG--ITMQFRQKQKSQOPENPNLVRELL +C+ C+R+T + RL C+ C +C Y IT+Q P+ P + LL Sbjct	1043	VRCYPCKRETTQRARLHCKLCHITSCLMCGPTYFNKKITVQ-----PMPQAPFNQKGLL	3610 1096
Query	3611	EHAIFLEEKCKNQ--ELLSETQIERIVSSEKQVKFYGILPTKKSNSK-AGYDLQSNID-- + C N+ L E + ++ E++++ L ++S K AG D + D Sbjct	1097	QQQQEYIAWCNNEIARLKEEVAFYKQLAQERELQ---LQLEQSRKELAGVDSRRRKDKG	3775 1152
Query	3776	IEIPPGKC 3799			
Sbjct	1153	IVIDEGSC 1160			

Score = 261 bits (668), Expect = 3e-67
 Identities = 138/327 (42%), Positives = 200/327 (61%), Gaps = 18/327 (5%)
 Frame = +2

Query	911	PSTSSTV-----PSQQDQIRDYRNMQRVRHTAERAARRIFPGRFNRNTLESQINPEAEIR P+T++ V P DQIRDYR QR RH R ++ +N+TLE ++PE ++ Sbjct	15	PATTARVEERDNTPLYDDQIRDYRQWQRRRHNMGRWNQLIGRPYNQTLQEVVDPEVALQ	1072 74
Query	1073	LSQQRRAAMVPAEVLYNTSPSTRNQKVYQHYSEERILCTGQNQQLNLPFINESSYRALRE LS Q RA +VPAEVLY + R+ +VY H SEE ILC Q++ I S L Sbjct	75	LSMQRERARLVPAAEVLYRSRTDDRHHQVYIHKSEEAILCV-DGDQVDRLLIQPESAEQLSR	1252 133
Query	1253	SGQQHLHIGLIMIRVHPLHRRNAGTTALIVPRDIRWNDRSIIIGTMEIDL SAGSQIVYIA SG +H+G++ +R+ LHR++ GTTAL+V RD RW D+SI TME+DL+ G Q+VYI Sbjct	134	SGMSFIHMGIVQVRIQILHRQHEGTTALVVFRDNRWQGDQSIFATMELDLTKGMQMVYII	1432 193
Query	1433	PNIMLSVEDFYRNIQLAIQTQGYENWNSAESNLLISR ALIGRLTNDSFTGFQYNISNVAE P+ M++V DF RN+Q++I T+GY NW + E+NLL++R ++GRL+N F Y I NV + Sbjct	194	PDTMMTWRDFCRNVQISILTKGYGNWQNGEANLLVTRGIVGRLSNTPNVAFAYQIQNVTD	1612 253
Query	1613	YLHSHGVAIEGQAHPRT--LGNRWILO-APAPPRSLVPQNVETTLLDGNSIRFSNYH YL SHG+QA+ G+ + G +W L+ + P + P NV+T ++DG++S+RF++Y Sbjct	254	YLVSHGIQALPGRRYSTADIQGQQWFLRPSNIPAVPMAPTNVDTRNMIDGSISLRFNSYQ	1783 313
Query	1784	QAP-----VNNDTQDNSHPDIQEDENQ 1846 AP N + PD EDE Q Sbjct	314	PAPDPTPVAYNQHDEEVPPD--EDEEQ 338	